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MAR 17 1993

Winston-Salem
Regional Office

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT, JR.
GOVERNOR

DIVISION OF HIGHWAYS
P.O. BOX 25201, RALEIGH, N.C. 27611-5201
Geotechnical Unit

SAM HUNT
SECRETARY

March 12, 1993

Ms. Sherry Knight, Supervisor
DEM/Groundwater Section
Winston-Salem Regional Office
8025 North Point Boulevard
Winston-Salem, North Carolina 27106

Re: State Project: 8.1570603 (R-609I)
County: Guilford
Description: US 311 Bypass in High Point
Subject: UST Closure and Site Investigation Report

Dear Ms. Knight:

Enclosed you will find a copy of the UST Closure Report prepared for NCDOT by Geophex, Ltd. NCDOT originally believed there were three USTs at the site, but an additional four were discovered during closure activities.

The requirements of DEM resulting from the findings of this closure investigation will have a direct effect upon the construction schedule of the highway project. Therefore, we ask that you keep this office notified of any actions your agency may require, as we provide environmental recommendations and field services to DOT Construction offices.

If you should need any additional information on this or any other NCDOT project, please do not hesitate contacting me at (919) 250-4088. Thank you for your time and consideration in the handling of this matter.

Sincerely,

Gregory A. Smith
Environmental Geologist
Geotechnical Unit



Geophex, Ltd
605 Mercury Street
Raleigh, North Carolina 27603
(919) 839-8515

December 16, 1992

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DEC 21 1992

Mr. Gregory A. Smith, P.G.
Environmental Geologist
Geotechnical Unit
NC Department of Transportation
P.O. Box 25201
Raleigh, NC 27611-5201

**DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL UNIT**

Subject: Underground Storage Tank Closure at 2323 East Green Street, High Point,
Guilford County, NC. Geophex Job 312.

Ref: NC DOT Project: 8.1570603, ID No.: R-609I, FA, Project: MAP-119-1(3)

Dear Mr. Smith:

In accordance with your request dated September 1, 1992, Geophex conducted closure activities on a former underground storage tank (UST) site located on NC DOT property at 2323 East Green Street, High Point, Guilford Co., NC (Figure 1). Initial information from NC DOT indicated two 5,000-gallon USTs and one 4,000-gallon UST on site. Geophex conducted a visual site inspection on September 9, 1992 and located one additional 560-gallon UST.

Geophex contracted Southern Pump and Tank Company (SPATCO) to remove the four USTs. Closure activities were conducted on October 26, 1992. After removal, Geophex conducted magnetic gradiometer and ground-penetrating radar (GPR) surveys to locate any other possible USTs. These surveys located three additional USTs (two 560-gallon tanks and a 1,000-gallon tank) within the proposed right-of-way (ROW) (Figure 2). Geophex contracted SPATCO to remove the three remaining USTs. Closure activities were conducted on November 10, 1992.

The procedure followed North Carolina Department of Environmental Management (NC DEM) guidelines. Prior to removal, the tanks were uncovered, vacuum-pumped of their contents and purged of flammable vapors. Water mixed with product was encountered in all seven of the USTs (Table 1) and in some of the 400 feet of associated piping. Upon removal it was determined that tanks T5, T6 and T7 had approximately 1-inch diameter or greater holes as a result of corrosion. The seven tanks were removed from the site and disposed of according to NC DEM UST regulations. Documentation for the removal and disposal of the USTs and their contents is enclosed in Appendix A.

Table 1. A chart listing the dimensions and capacities of the seven tanks from the excavation at 2323 East Green Street.

<i>Tank No.</i>	<i>Capacity (gallons)</i>	<i>Dimensions (diameter x length)</i>	<i>Amount of product</i>		<i>Tank Contents</i>
			<i>inches</i>	<i>gallons</i>	
T1	4,000	64" x 24'	4	105	water / fuel mixture
T2	5,000	96" x 14'	4	73	water / fuel mixture
T3	5,000	96" x 14'	6	134	water / fuel mixture
T4	560	48" x 6'	48	560	water / fuel mixture
T5	1,000	46" x 12'	46	1,000	water / fuel mixture
T6	560	48" x 6'	18	193	water / fuel mixture
T7	560	48" x 6'	2	8	water / fuel mixture

Following tank removals, a total of fifteen soil samples (one from beneath the end of each tank as well as beneath the center of tank T1) were collected from the site (see Figure 3) as directed by the NC DEM guidelines. The samples were submitted for certified laboratory analysis (IEA in Cary, NC) for Total Petroleum Hydrocarbons (TPH), using SW-846 Methods #3550 and/or #5030. The results of these analyses (Appendix B) are compiled in Table 2.

Table 2. Results of laboratory analyses of soil samples collected from the excavation at 2323 East Green Street. (for sample locations, see Figure 3.)

<i>Sample No.</i>	<i>Depth (feet)</i>	<i>TPH SW-846 Methods</i>	
		<i>#3550 (mg/kg)</i>	<i>#5030 (mg/kg)</i>
T1F	10	N/A	<2.0
T1M	10	N/A	<2.0
T1V	10	N/A	<2.0
T2F	12	N/A	<2.0
T2V	12	N/A	<2.0
T3F	12	N/A	<2.0
T3V	12	N/A	<2.0
T4F	5	< 2.0	N/A
T4V	5	< 2.0	N/A
T5F	7	100	<2.0
T5V	7	< 2.0	<2.0
T6F	13	< 2.0	<2.0
T6V	13	< 40	110
T7F	7	53	<5.0
T7V	7	1,800	<2.0

Bolded text indicates contamination in excess of NC DEM action level.
 N/A indicates not analyzed.

Soils within the excavated tank pit area consist of red, orange and yellow saprolitic clays. Soils around and beneath the tanks were tested on-site with a photoionization detector (PID). Approximately 15 cubic yards of soil was excavated from beneath tank T6, due to readings as high as 500 ppm, and stockpiled on site. Soils beneath tanks T1 through T5, T7 and the associated piping were found to be free of significant (>10 ppm) contamination during field screening. However, laboratory analyses report elevated TPH in samples T5F, T6V, T7F and T7V. This discrepancy may be the result of the age of the contamination. The NC DEM guideline, nevertheless is based solely on TPH data. The excavated areas were backfilled with native material unearthed during removal of the tanks. Approximately 100 cubic yards of borrow-fill material were brought in to replace that volume once occupied by the seven tanks and the stockpiled soil. Appendix C contains completed NC DEM UST closure forms.

Based on data from this site we recommend the following:

1. When roadway construction has been completed, the following additional tasks should be initiated:

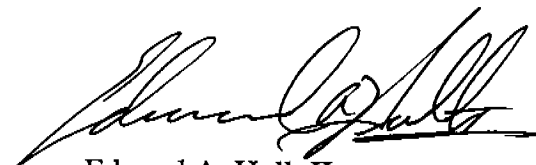
- a. Install, develop, sample, survey, and aquifer test three shallow, temporary groundwater monitor wells to determine the lateral movement of groundwater; and
- b. Analyze three groundwater samples by EPA Methods #602 modified with Methyl Tertiary Butyl Ether (MTBE), Ethylene Dibromide (EDB), and Isopropyl Ether to determine if groundwater contamination has occurred.

If the groundwater is found to be contaminated, DEM may request a risk assessment study (including an SSE) involving the groundwater usage in the site vicinity.

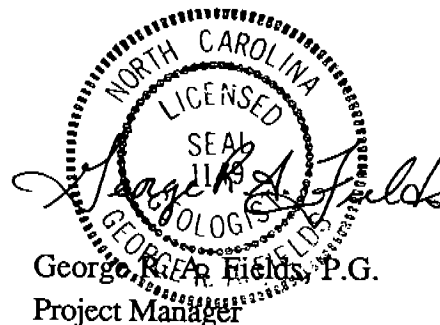
2. Depending on the results of the additional tasks, additional soil excavation may be necessary particularly near former USTs T5, T6, and T7, which appeared severely corroded when excavated.

3. Notify the Winston-Salem Regional Office of DEM of the results of this study.

Prepared and submitted by,

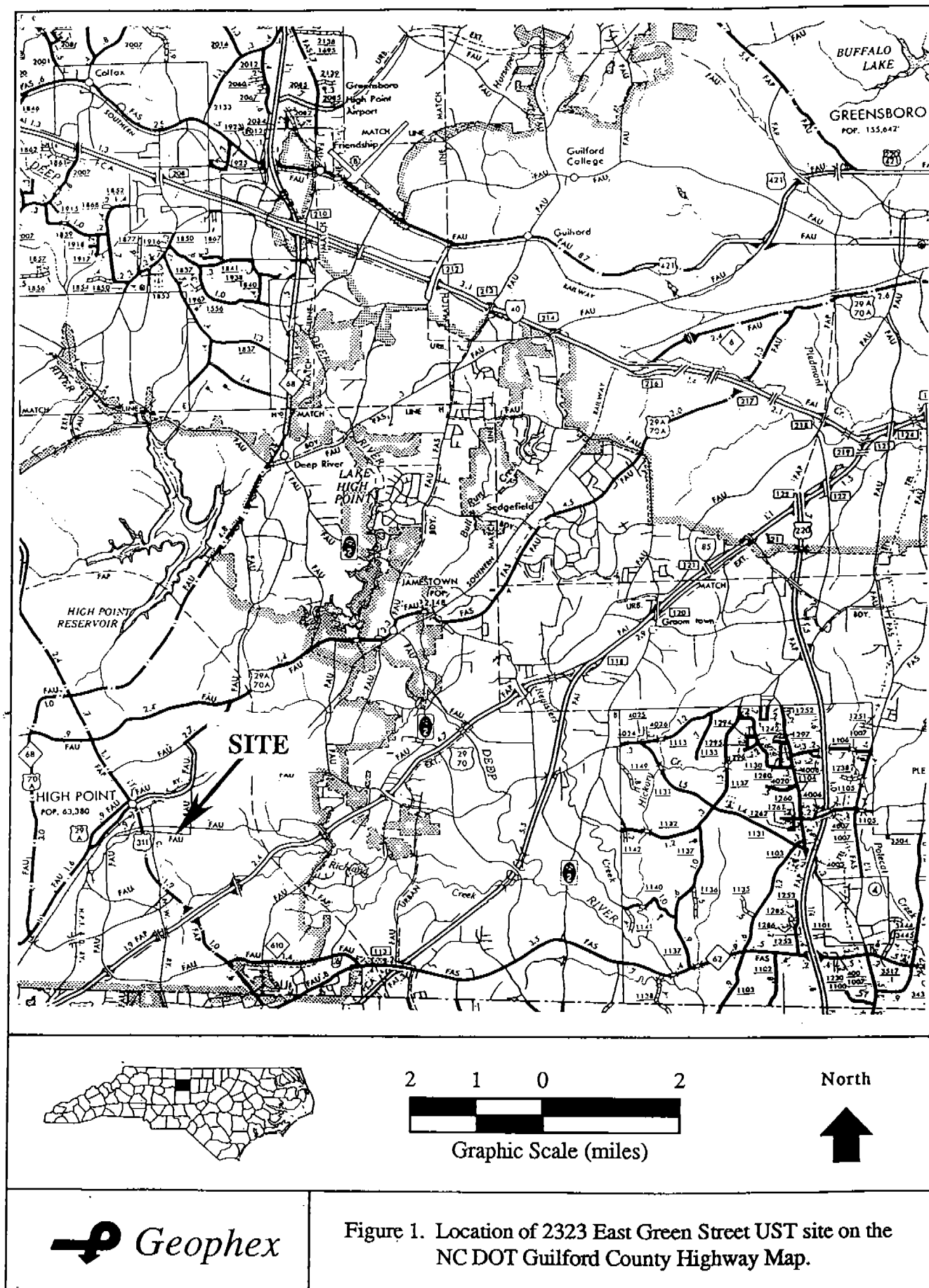


Edward A. Hull, II
Project Geologist



George R. Fields, P.G.
Project Manager

Figures



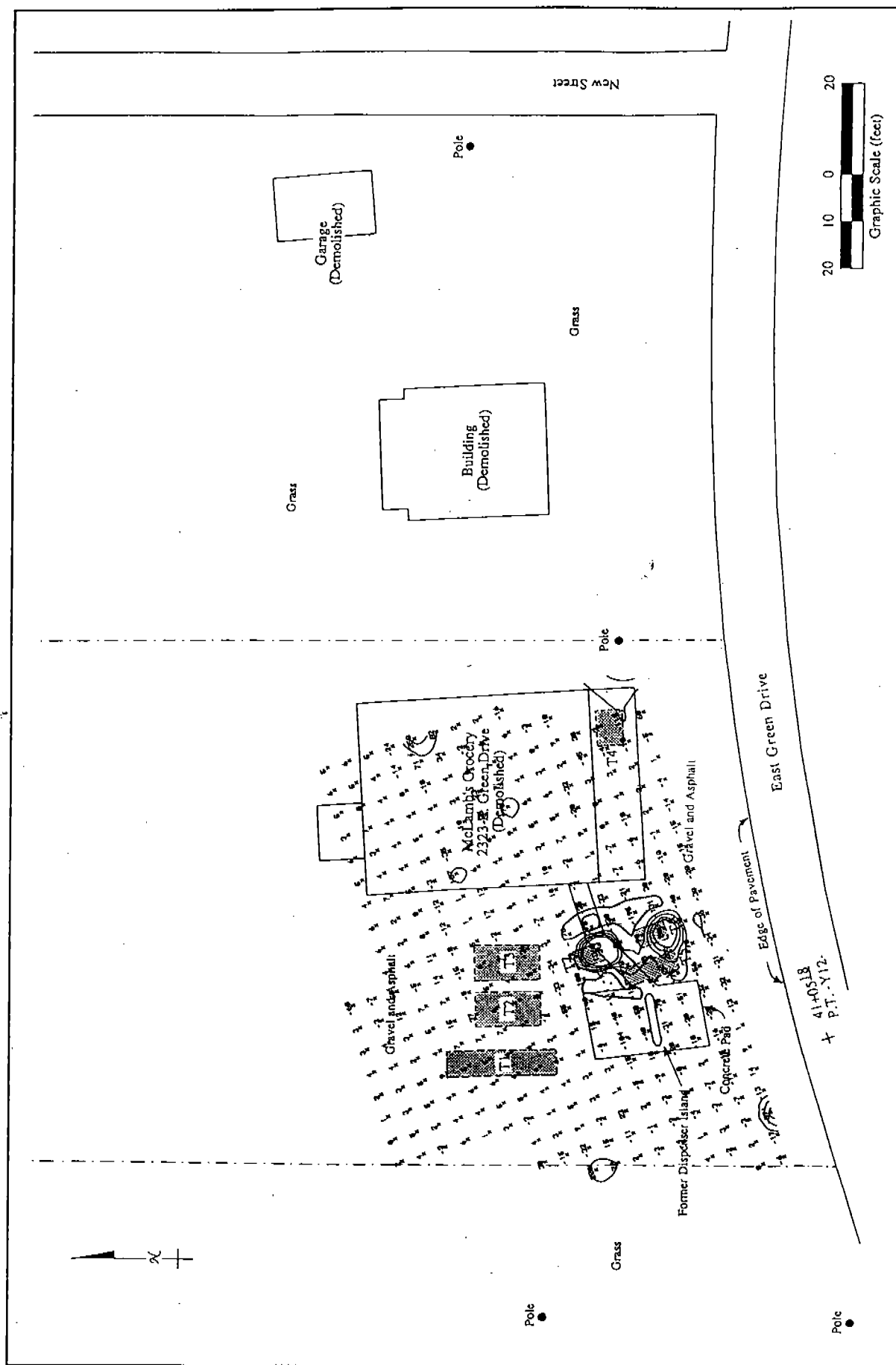


Figure 2. Site details for 2323 East Green Street UST site showing magnetic anomalies, tank locations and orientations

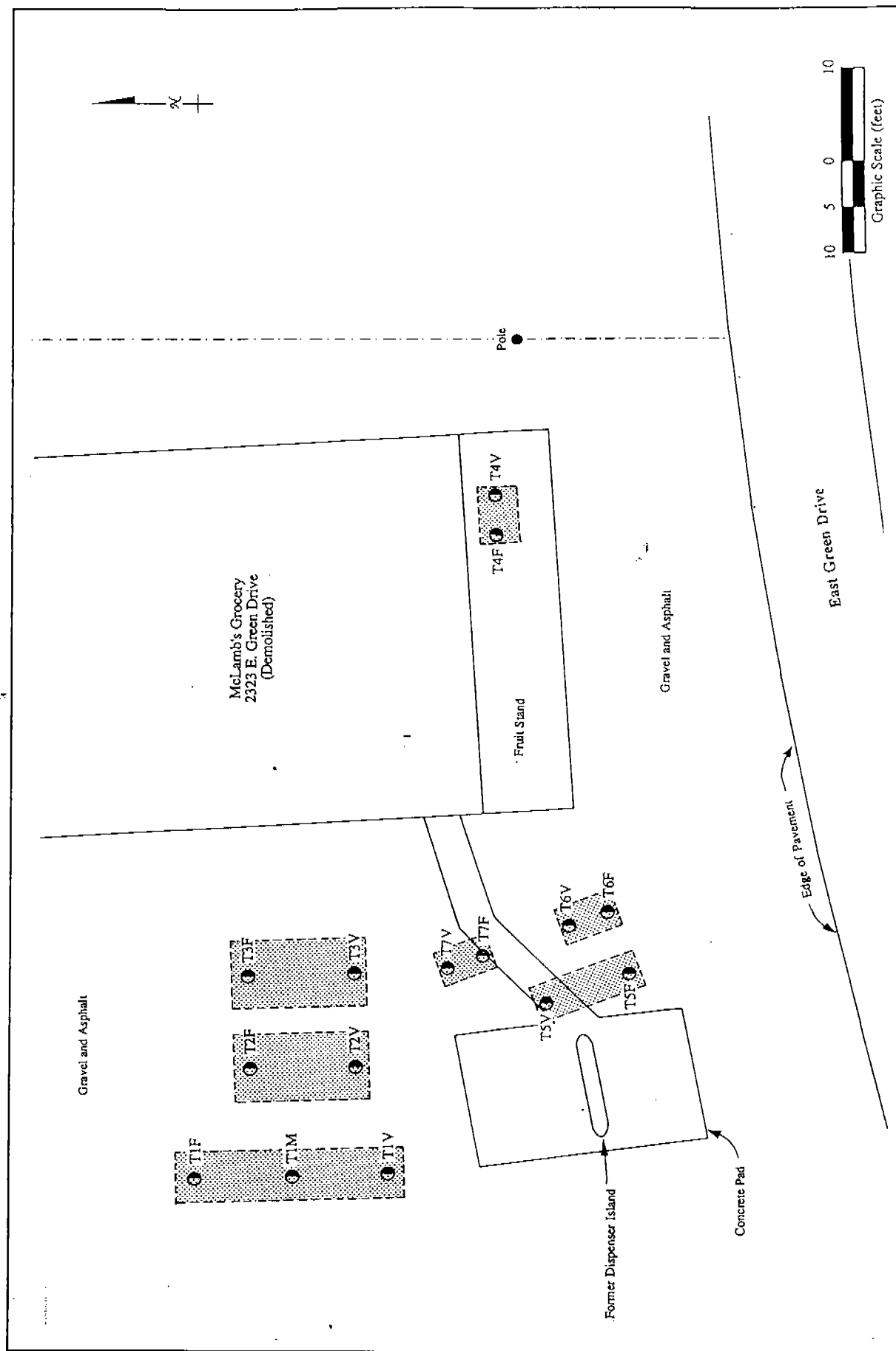


Figure 3. Soil sample locations at 2323 East Green Street UST site.

Appendix A:
Petroleum Waste
and
UST Disposal Manifest Records

<u>Description</u>	<u>Page</u>
Petroleum Waste Disposal Records	A-1
UST Disposal Manifest Records	A-3

USED OIL MANIFEST

NOBLE OIL SERVICES

Nº 20902

FACILITY

1-800-662-5364 5617 CLYDE RHYNE DR. SANFORD, N.C. 27330

FOR EMERGENCY RESPONSE:

Spill, Leak, Fire, Accident
CALL NC EMERGENCY MANAGEMENT

1-800-662-7956

24 HRS. PER DAY, 7 DAYS PER WEEK

EPA ID# NCD 9861-72476

DATE 10-26-92

GENERATOR

BILL TO:

CUSTOMER McLamb's Grocery

CUSTOMER Geophex LTD.

ADDRESS 2303 E. Green Dr

ADDRESS 605 Mercury St.

High Point NC. ZIP _____

Raleigh NC. ZIP 27603

CONTACT _____

CONTACT Edward Hull or George Field

PHONE () _____

PHONE (919) 839-8515

MATERIAL	GALLONS	UNIT PRICE	SERVICE CHRG.	TOTAL
A. Used Oil				
B. Waste Water				
(C) Other <u>Gas & Water</u>	<u>599</u>			
TERMS: Net 30 Days				TOTAL DUE

☒ NON HAZARDOUS, NON REGULATED WATER
☒ US DOT, OIL, NOS COMBUSTABLE LIQUID, NA 1270

TRUCK# _____ TIME 12:30 ☒ P.M. ☐ A.M.

NOBLE OIL SERVICES AGENT (Sign) Ray McEntire

Generators Certification:

I certify that the materials above are accurately described, classified, packaged, marked and labeled, and are in proper condition for transport according to applicable state, EPA, and D.O.T. regulations. Furthermore, I have no knowledge of any hazardous waste contained or mixed with the material that is to be transported. I the generator, expressly agree and promise to hold Noble Oil Services, Inc. and all its officers and employees free from and otherwise indemnify the same against any and all penalties and other liability resulting from the transfer of such materials under this manifest.

Authorized Customer Agent (Print) X _____

Authorized Customer Agent (Sign) [Signature]

Misc. Pumped 3-4000 and 1-250 ?

2-4,000 gal & 1-5,000 gal & 1-560

MANIFEST FORM

RECEIVED
NOV 16 1992

DATE 11-11-92

L & M ENVIRONMENTAL SERVICES, INC.
1641 W. LEXINGTON AVE.
HIGH POINT, NC 27262

EPA #: 981-243-942

GENERATING FACILITY:

[REDACTED] / ME (Herb)
CORNER of NEW ST & E GREEN
HIGH POINT NC

DESCRIPTION: GALLONS: 1200 Crude

AMOUNT: Waste Fuel & Water

PICKED UP FOR:

Spateo
K-Ville Job # 3475

DISPOSING FACILITY:

EASTERN petroleum CORP
WARREN ROBINS G. H.

EPA #:

G.A.D 984298182

TRANSPORTER'S SIGNATURE:

W. Anthony Maynard

GENERATOR'S SIGNATURE:

Safeway Tank Disposal, Inc.

Page 1 of 1

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NOV 30 1992

SAFETY
Hazardous Waste

CERTIFICATE OF TANK DISPOSAL

Customer

SPATCO Environmental
5566 Arbor Hill Rd.
Kernersville, NC 27284

Date Nov. 25, 1992

Transported by: Sanders ENT.

Tank Disposal Number	Size	Weight	Product	Residue Amount	Origin
6409	550	450#	Kero.	26 gal.	Green St. High Point NC
6410	5000	4933#	Gasoline	35 gal.	↓
6411	5000	4933#	Gasoline	55 gal.	
6412	4000	3440#	Gasoline	76 gal.	

Total Residue

192 gal.

Tanks were disposed in accordance with APR 1604, 1987 Removal and Disposal of Used Underground Petroleum Storage Tanks. Residue was disposed in accordance with U.S. EPA Regulations by licensed subcontractor. Lead free scrap steel was recycled by United Metal Recyclers on 11/12/92.

Bruce A. Lyon
SAFEGWAY TANK DISPOSAL, INC.

CERTIFICATE OF TANK DISPOSAL

Customer

Date Dec 10, 1992

SPATCO Environmental
5566 Arbor Hill Rd.
Kendallville, NC 27284

Job # 3475Transported by: L+m

Tank Disposal Number	Size gallons	Weight lbs	Product	Residue Amount	Origin
6482	1000	920 [±]	GAS	10 gal.	Corner of New St. + E. Green St. H. of Park
6483	550	450 [±]	GAS	9 gal.	↓
6484	550	450 [±]	GAS	12 gal.	

Total Residue

31 gal.

Tanks were disposed in accordance with APR 1604, 1987 Removal and Disposal of Used Underground Petroleum Storage Tanks. Residue was disposed in accordance with U.S. EPA Regulations by licensed subcontractor. Lead free scrap steel was recycled by United Metal Recyclers on 12/8/92.

Brian A. Young
 SAFEWAY TANK DISPOSAL, INC.

Appendix B:

Laboratory Analytical Results and Chain-of-Custody Records

Total petroleum hydrocarbon (TPH) using SW-846 Methods #3550 and/or #5030.

<u>Description</u>	<u>Page</u>
QC Blank for Methods #3550 and #5030	B-1
QC Blank for Methods #3550 and #5030	B-2
QC Blank for Method #5030	B-3
T1F 10'	B-4
T1M 10'	B-5
T1V 10'	B-6
T2F 12'	B-7
T2V 12'	B-8
T3F 12'	B-9
T3V 12'	B-10
T4F 5'	B-11
T4V 5'	B-12
T5F 7'	B-13
T5V 7'	B-14
T6F 13'	B-15
T6V 13'	B-16
T7F 7'	B-17
T7V 7'	B-18
Chain-of-Custody Records	B-19



IEA
An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-107 Date Sampled: N/A
Client Sample No: QC Blank Date Received: N/A
Client Project No: 312 Guilford 311 Bypass Date Extracted: 11-02-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-02-92 Analyzed by: Burke
Time Analyzed: 1805

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 2.0 mg/kg.

Comment:

N/A=Not Applicable

Corresponding Samples: 646-107-8 through 646-107-9

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 10-29-92 Analyzed by: Burke
Time Analyzed: 0804

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

N/A=Not Applicable

Corresponding Samples: 646-107-1 through 646-107-7

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-109 Date Sampled: N/A
Client Sample No: QC Blank Date Received: N/A
Client Project No: 312 NCDOT Guilford 311 Bypass Date Extracted: 11-19-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-19-92 Analyzed by: Burke
Time Analyzed: 1839

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 2.0 mg/kg.

Comment:

N/A=Not Applicable

Corresponding Samples: 646-109-1 through 646-109-6

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 11-18-92 Analyzed by: Burke
Time Analyzed: 0832

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

N/A=Not Applicable

Corresponding Samples: 646-109-1 through 646-109-3
646-109-5 through 646-109-6

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-109 Date Sampled: N/A

Client Sample No: QC Blank Date Received: N/A

Client Project No: 312 NCDOT Guilford 311 Bypass

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)

Date Analyzed: 11-19-92

Analyzed by: Burke

Time Analyzed: 1101

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

N/A=Not Applicable

Corresponding Sample: 646-109-4

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-107-1 Date Sampled: 10-26-92
Client Sample No: T-1F Date Received: 10-28-92
Client Project No: 312 Guilford 311 Bypass

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 10-30-92 Analyzed by: Burke
Time Analyzed: 0033

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-107-2 Date Sampled: 10-26-92
Client Sample No: T-1M Date Received: 10-28-92
Client Project No: 312 Guilford 311 Bypass

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 10-30-92 Analyzed by: Burke
Time Analyzed: 0108

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-107-3 Date Sampled: 10-26-92
Client Sample No: T-1V Date Received: 10-28-92
Client Project No: 312 Guilford 311 Bypass

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 10-30-92 Analyzed by: Burke
Time Analyzed: 0142

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-107-4 Date Sampled: 10-26-92
Client Sample No: T-2F Date Received: 10-28-92
Client Project No: 312 Guilford 311 Bypass

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 10-30-92 Analyzed by: Burke
Time Analyzed: 0217

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-107-5 Date Sampled: 10-26-92
Client Sample No: T-2V Date Received: 10-28-92
Client Project No: 312 Guilford 311 Bypass

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 10-30-92 Analyzed by: Burke
Time Analyzed: 0252

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-107-6 Date Sampled: 10-26-92
Client Sample No: T-3F Date Received: 10-28-92
Client Project No: 312 Guilford 311 Bypass

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 10-30-92 Analyzed by: Burke
Time Analyzed: 0327

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-107-7 Date Sampled: 10-26-92
Client Sample No: T-3V Date Received: 10-28-92
Client Project No: 312 Guilford 311 Bypass

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 10-30-92 Analyzed by: Burke
Time Analyzed: 0402

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA
An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No:	646-107-8	Date Sampled:	10-26-92
Client Sample No:	T-4F	Date Received:	10-28-92
Client Project No:	312 Guilford 311 Bypass	Date Extracted:	11-02-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-02-92 Analyzed by: Joaquin
Time Analyzed: 2053

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No:	646-107-9	Date Sampled:	10-26-92
Client Sample No:	T-4V	Date Received:	10-28-92
Client Project No:	312 Guilford 311 Bypass	Date Extracted:	11-02-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-02-92 Analyzed by: Joaquin
Time Analyzed: 2136

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-109-1 Date Sampled: 11-10-92
Client Sample No: T-5F Date Received: 11-13-92
Client Project No: 312 NCDOT Guilford 311 Bypass Date Extracted: 11-19-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-19-92 Analyzed by: Burke
Time Analyzed: 1923

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 100 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 11-18-92 Analyzed by: Burke
Time Analyzed: 2352

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-109-2 Date Sampled: 11-10-92
Client Sample No: T-5V Date Received: 11-13-92
Client Project No: 312 NCDOT Guilford 311 Bypass Date Extracted: 11-19-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-19-92 Analyzed by: Burke
Time Analyzed: 2006

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 2.0 mg/kg.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 11-19-92 Analyzed by: Burke
Time Analyzed: 0027

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



IEA
An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-109-3 Date Sampled: 11-10-92
Client Sample No: T-6F Date Received: 11-13-92
Client Project No: 312 NCDOT Guilford 311 Bypass Date Extracted: 11-19-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-19-92 Analyzed by: Burke
Time Analyzed: 2050

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 2.0 mg/kg.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 11-19-92 Analyzed by: Burke
Time Analyzed: 0102

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-109-4 Date Sampled: 11-10-92
Client Sample No: T-6V Date Received: 11-13-92
Client Project No: 312 NCDOT Guilford 311 Bypass Date Extracted: 11-19-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-20-92 Analyzed by: Burke
Time Analyzed: 0200

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 40 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis.
Extract diluted due to the presence of non-target compounds.

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 11-20-92 Analyzed by: Burke
Time Analyzed: 1205

The sample contains a petroleum hydrocarbon blend with a distillation range similar to gasoline. Total concentration is 110 mg/kg.
The quantitation limit is 10 mg/kg.

Comment:

Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to the presence of target compounds.
FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-109-5 Date Sampled: 11-10-92
Client Sample No: T-7F Date Received: 11-13-92
Client Project No: 312 NCDOT Guilford 311 Bypass Date Extracted: 11-19-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-19-92 Analyzed by: Burke
Time Analyzed: 2135

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 53 mg/kg.
The quantitation limit is 2.0 mg/kg.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 11-19-92 Analyzed by: Burke
Time Analyzed: 0211

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 5.0 mg/kg.

Comment:

Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to the presence of non-target compounds.
FAX



IEA

An Aquarion Company

Total Petroleum Hydrocarbon Analysis

IEA Sample No: 646-109-6 Date Sampled: 11-10-92
Client Sample No: T-7V Date Received: 11-13-92
Client Project No: 312 NCDOT Guilford 311 Bypass Date Extracted: 11-19-92

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 11-20-92 Analyzed by: Burke
Time Analyzed: 0933

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 1800 mg/kg. The quantitation limit is 50 mg/kg.

Comment:

Quantitation limit elevated due to extract dilution prior to analysis. Extract diluted due to the presence of target compounds.

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 11-19-92 Analyzed by: Burke
Time Analyzed: 0245

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

FAX



CHAIN OF CUSTODY RECORD

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER

No= 28349

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CHAIN OF CUSTODY RECORD

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☐ OTHER

No. 28359

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Appendix C:

NC DEM Site Investigation Report
For Permanent Closure or
Change-in-Service of UST

Site Investigation Report For Permanent Closure of U.S.T.

FOR TANKS IN NC	Return Completed Form To: The appropriate DEM Regional Office according to the county of the facility's location. [SEE MAP ON REVERSE SIDE OF OWNER'S COPY (BLUE) FOR REGIONAL OFFICE ADDRESS].	State Use Only I.D. Number _____ Date Received _____
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INSTRUCTIONS

Please complete and return within (30) days following completion of site investigation.

I. Ownership of Tank(s)	II. Location of Tank(s)
NC Department of Transportation Owner Name (Corporation, Individual, Public Agency, or Other Entry) P.O. Box 25201 Street Address Wake County Raleigh, NC 27611-5201 City State Zip Code 919 250-4088 Area Code Telephone Number	McLamb's Grocery Facility Name or Company 0-010481 Facility ID # (if available) 2323 E. Green Drive Street Address or State Road Guilford High Point County City Zip Code Area Code Telephone Number

III. Contact Person		
Name George R.A. Fields	Job Title Project Manager	Telephone Number (919) 839-8515
Closure Contractor Geophex, Ltd. 605 Mercury Street Raleigh, NC 27603-2343		
Lab IEA	(Name) 3000 Weston Parkway	(Address) Cary, NC 27513

IV. U.S.T. Information	V. Excavation Condition	VI. Additional Information Required									
Tank No.	Size in Gallons	Tank Dimensions	Last Contents	Water in Excavation				Free Product		Notable Odor or Visible Soil Contamination	
				Yes	No	Yes	No	Yes	No	Yes	No
T1	4000	64" x 24'	Gasoline		X			X			X
T2	5000	96" x 14'	Gasoline		X			X			X
T3	5000	96" x 14'	Gasoline		X			X			X
T4	560	48" x 6'	Fuel Oil ?		X			X			X

See reverse side of blue copy (owner's copy) for additional information required by N.C. - DEM in the written report and sketch.

VII. Check List	
Check the activities completed. <input checked="" type="checkbox"/> Contact local fire marshal <input checked="" type="checkbox"/> Notify DEM Regional Office before abandonment <input checked="" type="checkbox"/> Drain & flush piping into tank <input checked="" type="checkbox"/> Remove all product and residuals from tank <input checked="" type="checkbox"/> Excavate down to tank <input checked="" type="checkbox"/> Clean and inspect tank <input checked="" type="checkbox"/> Remove drop tube, fill pipe, gauge pipe, vapor recovery tank connections, submersible pumps and other tank fixtures. <input checked="" type="checkbox"/> Cap or plug all lines except the vent and fill lines. <input checked="" type="checkbox"/> Purge tank of all product & flammable vapors. <input checked="" type="checkbox"/> Cut one or more large holes in the tanks. <input checked="" type="checkbox"/> Backfill the area. Date Tank Permanently closed: Oct 26, 1992 & Nov 10, '92	<div style="border: 1px solid black; padding: 5px;"> ABANDONMENT IN PLACE <input type="checkbox"/> Fill tank until material overflows tank opening. <input type="checkbox"/> Plug or cap all openings. <input type="checkbox"/> Disconnect and cap or remove vent line <input type="checkbox"/> Solid inert material used - please specify: _____ </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> REMOVAL <input checked="" type="checkbox"/> Create vent hole <input checked="" type="checkbox"/> Label tank <input checked="" type="checkbox"/> Dispose of tank in approved manner Final tank destination: <u>United Metal Recyclers</u> </div>

VIII. Certification (Read and Sign)		
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.		
Print name and official title of owner or owner's authorized representative George R.A. Fields, P.G.	Signature 	Date Signed 11/27/92

Site Investigation Report For Permanent Closure of U.S.T.

FOR
TANKS
IN
NC

Return Completed Form To:
The appropriate DEM Regional Office according to the county of the facility's location.
[SEE MAP ON REVERSE SIDE OF OWNER'S COPY (BLUE) FOR REGIONAL
OFFICE ADDRESS].

State Use Only

I.D. Number _____

Date Received _____

INSTRUCTIONS

Please complete and return within (30) days following completion of site investigation.

I. Ownership of Tank(s)

NC Department of Transportation
Owner Name (Corporation, Individual, Public Agency, or Other Entry)
P.O. Box 25201
Street Address
Wake
County Raleigh, NC 27611-5201
City 919 State NC Zip Code 250-4088
Area Code _____ Telephone Number _____

II. Location of Tank(s)

McLamb's Grocery
Facility Name or Company
0-010481
Facility ID # (if available)
2323 E. Green Drive
Street Address or State Road
Guilford High Point
County _____ City _____ Zip Code _____
Area Code _____ Telephone Number _____

III. Contact Person

Name George R.A. Fields Job Title Project Manager Telephone Number (919) 839-8515
Closure Contractor Geophex, Ltd. 605 Mercury Street Raleigh, NC 27603-2343
(Name) (Address)
Lab IEA 3000 Weston Parkway Cary, NC 27513
(Name) (Address)

IV. U.S.T. Information

V. Excavation Condition

VI. Additional Information Required

Tank No.	Size in Gallons	Tank Dimensions	Last Contents	Water in Excavation		Free Product		Notable Odor or Visible Soil Contamination	
				Yes	No	Yes	No	Yes	No
T5	1000	46" x 12'	Gasoline		X		X	X	
T6	560	48" x 6'	Gasoline		X		X	X	
T7	560	48" x 6'	Gasoline		X		X	X	

See reverse side of blue copy (owner's copy) for additional information required by N.C. - DEM in the written report and sketch.

VII. Check List

Check the activities completed.

- ☒ Contact local fire marshal
- ☒ Notify DEM Regional Office before abandonment
- ☒ Drain & flush piping into tank
- ☒ Remove all product and residuals from tank
- ☒ Excavate down to tank
- ☒ Clean and inspect tank
- ☒ Remove drop tube, fill pipe, gauge pipe, vapor recovery tank connections, submersible pumps and other tank fixtures
- ☒ Cap or plug all lines except the vent and fill lines
- ☒ Purge tank of all product & flammable vapors
- ☒ Cut one or more large holes in the tanks
- ☒ Backfill the area

Date Tank Permanently closed: Oct 26, 1992 & Nov 10, '92

- ABANDONMENT IN PLACE**
- ☐ Fill tank until material overflows tank opening
 - ☐ Plug or cap all openings
 - ☐ Disconnect and cap or remove vent line
 - ☐ Solid inert material used - please specify: _____

- REMOVAL**
- ☒ Create vent hole
 - ☒ Label tank
 - ☒ Dispose of tank in approved manner

Final tank destination: United Metal Recyclers

VIII. Certification (Read and Sign)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Print name and official title of owner or owner's authorized representative

George R.A. Fields, P.G.

Signature

George R.A. Fields

Date Signed

11/27/92